



Testimony

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Committee on Science
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FEDERAL RESEARCH

Information on the Advanced Technology Program's 1997 Award Selection

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Madam Chairwoman and Members of the Subcommittee:

We are pleased to be here today to discuss the Advanced Technology Program (ATP), which is administered by the National Institute of Standards and Technology (NIST) within the Department of Commerce. ATP is a competitive, cost-sharing program designed for the federal government to work in partnership with industry to foster the development and broad dissemination of challenging, high-risk technologies that offer the potential for significant, broad-based economic benefits for the nation. On September 29, 1997, NIST provided the Committee with a list of projects that had been selected to receive awards under the fiscal year 1997 ATP competitions. In a cover sheet attached to this list, NIST stated that ATP rejected project proposals when it concluded that (1) the applicants could probably find funding elsewhere or (2) a delay in project progress would not be a serious national economic concern. In our report released today, we identified the information that ATP used to make these determinations.¹

That report highlights the following:

- According to program officials, for the fiscal year 1997 competition, NIST made the determination of whether the applicants could probably find funding elsewhere based on information gathered throughout the proposal review process. This included questioning the applicants during the oral review phase if doubt remained as to whether the applicants could have found project funding elsewhere. For the fiscal year 1997 competition, there was no requirement that applicants report that they could not find funding elsewhere. However, in December 1997, ATP revised its requirements such that in the future applicants must indicate on the proposal application their efforts to find private funding.
- Likewise, program officials told us that information acquired during the proposal review was used to determine if program support was important to the project from a national economic perspective. Specifically, according to ATP officials, one of the five selection criteria for evaluating program proposals, "Potential Net Broad-based Economic Benefits," relates to whether or not funding a project would create a serious national economic concern. According to the guidance to applicants for preparing project proposals, the review process would include a review of the proposal by panels of outside experts in business and economics to determine the proposed project's potential for broad-based benefits and its

¹Federal Research: Information on the Advanced Technology Program's 1997 Award Selection (GAO/RCED-98-82R, Feb. 24, 1998)

commercial viability. However, program officials neither defined what they meant by a serious national economic concern nor how the ATP reviews resulted in a determination that a delay in project progress would not be a serious national economic concern.

Background

ATP's fiscal year 1997 competitions consisted of one general competition and six focused program competitions in the following areas: motor vehicle manufacturing technology, information infrastructure for health care, digital data storage, technologies for the integration of manufacturing applications, component-based software, and tissue engineering. A total of 64 industry-generated projects were selected out of 570 applications, with an industry cost share of \$142 million and ATP investment of \$162 million over the life of the projects.

The ATP Proposal Preparation Kit applicants used to prepare project proposals contains background material on the program, guidance for preparing the proposal application, and all of the required forms. According to the ATP regulation, projects are selected for funding based on the following five selection criteria: (1) scientific and technical merit, (2) the potential net broad-based economic benefits, (3) adequacy of plans for eventual commercialization, (4) level of commitment and organizational structure, and (5) experience and qualifications.

As part of the selection process, ATP uses peer reviewers to assess the proposed technology's scientific and technical merit and its potential for yielding broad-based economic benefits to the nation. The peer reviewers' comments are documented on worksheets, and ATP uses these comments to determine which proposals have the highest merit. Applicants may also be asked to make oral presentations of their proposals at NIST.

Federal funding for ATP peaked at a high of \$341 million in fiscal year 1995. Currently, ATP's fiscal year 1998 budget stands at \$192.5 million. New awards were capped at \$62 million during fiscal year 1997 and at \$82 million during fiscal year 1998. For fiscal year 1999, the President's budget proposes \$269 million for the program.

ATP's Efforts to Determine the Availability of Private Sector Funds

According to ATP officials, NIST determined whether the applicants could probably find funding elsewhere based on information gathered throughout the fiscal year 1997 competition proposal review process. For example, the technical reviewer worksheets contained sections for optional evaluations of the degree to which program support is necessary and the pace with which domestic and foreign competitors are developing essentially the same or competing technologies. In addition, the business reviewer worksheets directed reviewers to evaluate why applicants could not fund the project 100 percent on their own. ATP officials also said that applicants were questioned during the oral review phase if doubt remained in this area.

For the fiscal year 1997 competition, there was no requirement that applicants report that they could not find funding elsewhere. However, in December 1997, NIST revised its ATP Proposal Preparation Kit to request that future applicants describe what efforts were made, before applying for ATP funding, to secure private capital to wholly support their project. According to ATP officials, the information provided in this portion of the application will be used in future competitions together with information gathered elsewhere in the application to aid in making an overall funding decision on the applicant's proposal.

ATP's Efforts to Determine Whether Projects May Pose a Serious National Economic Concern

For the fiscal year 1997 competition, applicants were required to provide detailed information on a variety of economic factors. For example, applicants were asked to describe the project's potential incremental economic benefits to the nation if funded by the ATP compared with the benefits from research and development if privately funded at a lower level; provide supporting evidence on market size and commercialization pathways to the broad-based benefits; and identify spillover benefits to other fields of activity or entire industries.

ATP's proposal review indicated that ATP should not fund projects unless there is strong evidence that the funding can bring about important national economic benefits beyond what would likely result without ATP involvement. The business reviewer worksheets contained a section for an evaluation of the potential broad-based economic benefits for the proposed projects. Reviewers were asked to evaluate the proposed project in terms of (1) the potential to improve U.S. economic growth and productivity, (2) timeliness, (3) the degree to which ATP support is necessary, and (4) cost-effectiveness (or probable benefits relative to costs).

In summary, for the fiscal year 1997 competition, ATP did not have a requirement in place for applicants to document whether they sought funding elsewhere, but relied on the review process to make this determination. For future competitions, ATP has included a question on the application form regarding the applicant's efforts to find private funding. There is no guidance as to the detail expected in the response. Regarding the determination of whether projects would pose a serious national economic concern if not selected, ATP collects a great deal of economic information from applicants in its proposal process; however, there is no explicit reference to serious national economic concern in any of the associated guidance for evaluating the potential broad-based economic benefits of proposed projects.

Madam Chairwoman, this concludes my prepared remarks. I would be happy to respond to any questions you or the members of the Subcommittee may have.